

REMARKS

Reconsideration of this application and the rejection of claims 1-4, 7-8, 10, 12-15 and 20-22 are respectfully requested. Applicants have attempted to address every objection and ground for rejection in the Office Action dated February 6, 2006 (Paper No. 20060201) and believe the application is now in condition for allowance. The claims have been amended to more clearly describe the present invention.

Applicants acknowledge the indication of allowability of claims 6 and 9. However, Applicants respectfully submit that the application as amended is now allowable for the reasons discussed below.

Claims 1-4, 7, 8, 10, 12, 13, 15 and 20-22 stand rejected under 35 U.S.C. §102(a) as being anticipated by Graves (US 6,575,377). The Examiner asserts that chambers 44 and 54 are for the cold water path and 50, 54 for the hot water path. However, as is pointed out in Graves (Col. 4, lines 40-49 and Col. 6, lines 51-67), for both cold and hot water flows to move from their initial chambers 40, 42, they must pass through control points of the mixing valve, such as poppet 52 for the cold water.

In contrast, the present invention is concerned with distributing the incoming hot and cold flows to a mixing valve, so that on reaching the porting for the proportioning valve that controls the relative proportions of the hot and cold water to be mixed and thus the outlet water temperature, both hot and cold flows are uniformly distributed. The present invention is directed to a multi-stage inlet plenum chambers for manipulating the incoming

flows prior to their reaching the mixing valve so that the flows do not progress directly to the mixing valve.

Accordingly, claim 1 has been amended to recite, among other things, valve means for controlling the relative proportions of hot and cold water admitted to a mixing chamber, . . . each inlet communicating with a respective multi-stage plenum chamber constructed and arranged to distribute flow of water to porting of the valve means for admitting the water to the mixing chamber, wherein each said multi-stage plenum chamber is configured to distribute flow of water to porting of the valve means for admitting the water to the mixing chamber wherein water enters and exits each stage at positions axially spaced from each other.

Regarding claim 21, among other things, it now recites that each said inlet communicates with a respective multi-stage inlet chamber, valve means for controlling the relative proportions of hot and cold water admitted from each said multi-stage inlet chamber to a mixing chamber, each said multi-stage inlet chamber being arranged upstream of porting of said valve means to distribute the flow from the associated inlet uniformly with respect to said porting for admitting the flow to said mixing chamber to reduce asymmetric flow patterns and promote thorough mixing of the flows within said mixing chamber, wherein each said multi-stage inlet chamber has an outer chamber communicating with the associated inlet, an inner chamber associated with said porting, and at least one opening for water to

enter said inner chamber from said outer chamber, said at least one opening being axially spaced from said porting and from said inlet to said outer chamber.

Similarly as amended, claim 22 recites, among other things, providing valve means for controlling the relative proportions of hot and cold water admitted to a mixing chamber, providing multi-stage inlet chambers upstream of said valve means for the hot and cold water flows respectively, and arranging each said multi-stage inlet chamber such that water enters and exits each stage of said multi-stage inlet chamber at positions axially spaced from each other so as to distribute the flow uniformly to porting of said valve means for admitting the flow to said mixing chamber.

Since Graves discloses multiple chambers after or downstream of the hot and cold water flows reaching the porting means, the invention as now recited in claims 1, 21 and 22 is not disclosed by the reference. Accordingly, the rejection based on 35 USC 102(a) is respectfully traversed.

Claim 14 stands rejected under 35 USC 103(a) as being obvious in view of Graves. Claim 14 depends from claim 1 and the arguments asserted above traversing Graves are reasserted here. As such, it is submitted that the Section 103 rejection based on Graves is respectfully traversed.

Claims 5, 9, 11 and 16-19 are withdrawn pursuant to 37 CFR 1.142(b) as being drawn to a non-elected species. However, amended claims 1, 21 and 22 are generic to all species and it is submitted that these claims are allowable with claim 1.

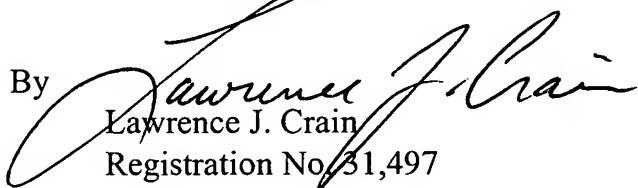
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In view of the above amendments and remarks, the application is respectfully submitted to be in allowable form. Allowance of the rejected claims is respectfully requested. Should the Examiner discover there are remaining issues which may be resolved by a telephone interview, he is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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